

**NOAA
FISHERIES**

Pacific Islands Region

corals

Acropora globiceps

:: Biological Information

MORPHOLOGY

Colonies of *Acropora globiceps* have finger-like branches. The size and appearance of branches depend on degree of exposure to wave action but are always closely compacted. Colonies exposed to strong wave action have pyramid-shaped branchlets. Colonies can be uniform blue (which may photograph purple) or cream, brown, or fluorescent green in color.



Photos copyright: Douglas Fenner

REPRODUCTION

Acropora globiceps is a hermaphroditic (having both male and female gametes) spawner with lecithotrophic (yolk-sac) larvae.

:: Spatial Information

GEOGRAPHIC RANGE

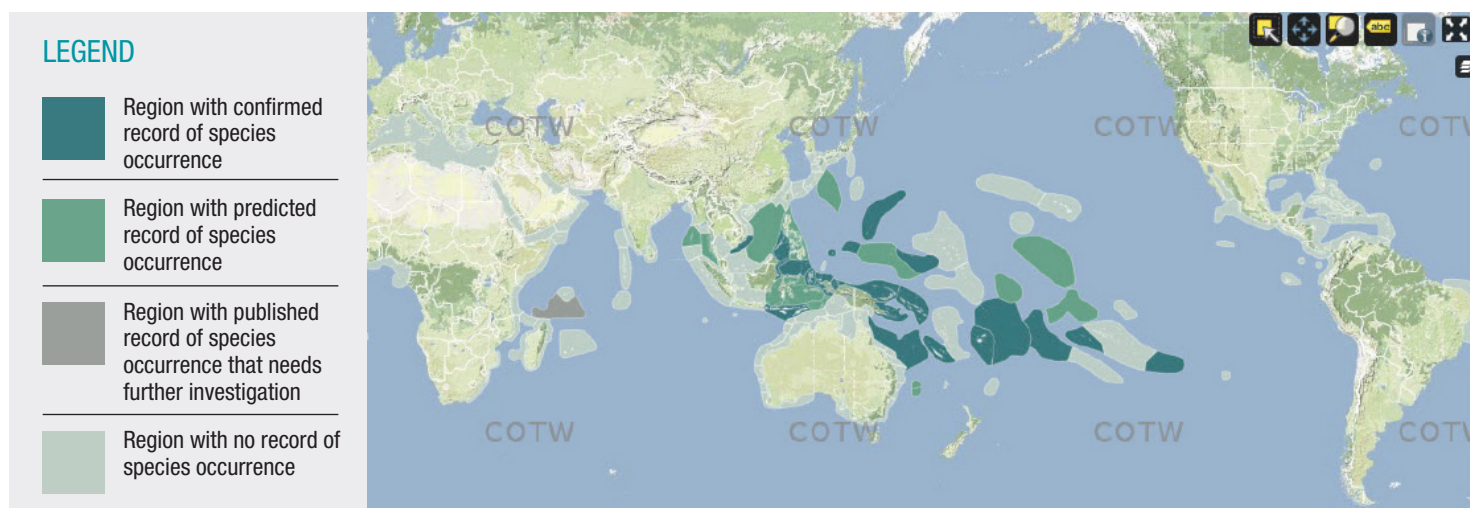
Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Acropora globiceps* is likely distributed from the oceanic west Pacific to the central Pacific as far east as the Pitcairn Islands.

For more information contact:

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Veron JEN, Stafford-Smith MG, Turak E and DeVantier LM (in prep.) Corals of the World www.coralsoftheworld.com

OCCURRENCE IN U.S. JURISDICTIONS

Based on the information below we consider *Acropora globiceps* to occur in Guam, the Commonwealth of the Northern Mariana Islands (CNMI), American Samoa, and the Pacific Remote Island Areas (PRIA).

Guam: Wallace (1999) lists a specimen of *Acropora globiceps* from Guam in the North Queensland Museum collection. Veron (2014) lists this species in the “Marianas” but is not specific about whether it is in Guam and/or CNMI. Randall and Myers (1983) and Randall (1995; 2003) do not list it in Guam, nor does Burdick (2014), but Randall and Burdick (in preparation) do. Brainard *et al.* (2011) indicate that it has been reported from the “Northern Marianas Islands” but do not mention Guam. The IUCN Red List indicates it is known from Guam, but does not give the source.

CNMI: D. Fenner has a photo from CNMI that shows this species clearly. Veron (2014) lists this species in the “Marianas” but is not specific about whether it is in Guam and/or CNMI. Randall (1995; 2003) does not list it in Guam or CNMI, nor does Burdick (2014), but Randall and Burdick (in preparation) list it from the Mariana Islands, but it is not clear if they list it from CNMI. Brainard *et al.* (2011) indicate that it has been reported from the “Northern Marianas Islands” by the IUCN Red List. The IUCN Red List indicates it is known from the “Northern Mariana Islands,” but does not give the source.

PRIA: Kenyon *et al.* (2010) report *Acropora globiceps* at Kingman Reef and Palmyra Atoll in the PRIA. Williams *et al.* (2008) report it from Palmyra.

American Samoa: *Acropora globiceps* was reported in American Samoa by Fisk and Birkeland (2002), Coles *et al.* (2003), Maragos and Kenyon (2004), Didonato *et al.* (2005), Brainard *et al.* (2011) and Fenner (2013) with photographs included. D. Fenner has examined the type specimen in the Smithsonian, and American Samoa specimens match it very closely. Veron (2014) reports it from “Samoa” but likely means “American Samoa” since he indicates in notes that all species found in the Tuvalu-Samoa-Tonga ecoregion have been found in American Samoa.

HABITAT TYPES AND DEPTH

Acropora globiceps occurs on upper reef slopes, reef flats, and adjacent habitats in depths ranging from 0 to 8 meters.

:: Demographic Information

RELATIVE LOCALIZED ABUNDANCE

Relative localized abundance refers to how commonly a species is observed on surveys in a localized area. Veron (2014) reports that *Acropora globiceps* occurred in 3.2 percent of 2,984 dive sites sampled in 30 ecoregions of the Indo-Pacific. It was given an abundance rating on a scale of 1 (low) to 5 (high) at each site where it occurred, based on how common it was at that site. *Acropora globiceps* had a mean abundance rating of 1.95. Based on this semi-quantitative system, the species' abundance was characterized as "uncommon."

ABSOLUTE OVERALL ABUNDANCE

Absolute overall abundance refers to a rough qualitative minimum estimate of the total number of colonies of a species that currently exist throughout its range. These estimates were calculated based on results from Richards *et al.* (2008) and Veron (2014). The absolute abundance of *Acropora globiceps* is likely at least tens of millions of colonies.

:: Why is this Species Threatened?

Acropora globiceps is susceptible to the three major threats identified for corals including ocean warming, disease, and ocean acidification, as well as many of the other threats to corals. Despite its distribution from southeast Asia to the central Pacific, *Acropora globiceps* occurs primarily in a limited depth range of 0 to 8 meters. Shallow reef areas can be physically diverse and complex, but are often subjected to frequent changes in environmental conditions, extremes, high irradiance, and simultaneous effects from multiple stressors, both local and global in nature. Future projections of climate change impacts to coral reef environments indicate that a shallow depth range, in combination with its other biological, demographic, and spatial characteristics, contributes to a risk of extinction within the foreseeable future for *Acropora globiceps*.

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